

```

=> s hyperpolymeric hemoglobin?
      0 HYPERPOLYMERIC
      4319 HEMOGLOBIN?
L1      0 HYPERPOLYMERIC HEMOGLOBIN?
      (HYPERPOLYMERIC (W) HEMOGLOBIN?)
=> s hyper polymeric
      1655 HYPER
      109634 POLYMERIC
L2      0 HYPER POLYMERIC
      (HYPER (W) POLYMERIC)
=> s hyper polym?

```

TERM 'POLYM?' EXCEEDED TRUNCATION LIMITS - SEARCH ENDED

```

=> s hyper polyme4r?
      1655 HYPER
      0 POLYME4R?
L3      0 HYPER POLYME4R?
      (HYPER (W) POLYME4R?)
=> s hyper polymer?

```

```

      1655 HYPER
      276090 POLYMER?
L4      0 HYPER POLYMER?
      (HYPER (W) POLYMER?)

```

```

=> s hyperpolymer?
L5      2 HYPERPOLYMER?

```

```

=> s l5 and hemoglobin
      4157 HEMOGLOBIN
L6      0 L5 AND HEMOGLOBIN

```

```

=> s l5
L7      2 HYPERPOLYMER?
=> d 1-

```

1. 5,043,391, Aug. 27, 1991, Linear addition polymer with hyperpolarizable side groups; Carel T. J. Wreesmann, et al., 525/279, 293, 337; 528/480 [IMAGE AVAILABLE]
2. 4,999,401, Mar. 12, 1991, Linear addition polymer with hyperpolarizable side groups; Carel T. J. Wreesmann, et al., 525/279, 293, 337; 526/265, 311 [IMAGE AVAILABLE]

=

---

DT Journal  
LA German  
CC 63 (Pharmaceuticals)  
AB Developing an artificial oxygen carrier for use in humans, we polymerize native Hb and myoglobin, using bifunctional, amino group specific cross-linkers, to sol., so-called hyperpolymers. These polymers, like other polymd. globular proteins, are members of a new class of macromols. which consist of macromol. base units. They all have, due to the mechanisms of the chem. reaction, broad distributions of mol. wts. Fractions of hyperpolymers of human Hb were obtained by employing preparative gel-permeation (size-exclusion) chromatog. The calibration curve of anal. gel-permeation chromatog. (GPC) for Hb hyperpolymers was detd. using mean mol. wts. of some fractions, as assessed by osmometric and light scattering measurements. In analogy to native globular proteins, the calibration curve for Hb polymers - within the range of mol. wts. considered here, and within the exptl. accuracy - is a straight line. All fractions of Hb polymers were further characterized with the aid of calibrated anal. GPC. Mean non-uniformity was about 0,6. The dependence of the logarithm of the intrinsic viscosity [ $\eta$ .] on the logarithm of the viscosity-av. mol. wt.  $\eta_{\text{av}} \cdot M$  of the fractions (the curve in the "structure-in-soln. diagram") also is a straight line, which is true for Hb and for myoglobin polymers as well. Its first deriv. is the exponent  $a$  of the Mark-Houwink function; for Hb and myoglobin polymers the values are 0,39 and 0,46, resp. Hb and myoglobin hyperpolymers, as members of the new class of polymers, both have a characteristic so-called "structure-in-soln. diagram", and a characteristic calibration curve in GPC. The special structure-in-soln. of the polymer proteins is a novel mol. superstructure. The intrinsic viscosity for native myoglobin was found to be 3,5 mL/g.

L6 ANSWER 2 OF 4 CAPLUS COPYRIGHT 1996 ACS DUPLICATE 1  
AN 1994:708203 CAPLUS  
DN 121:308203  
TI Divinyl sulfone crosslinked \*\*\*hyperpolymeric\*\*\* human  
\*\*\*hemoglobin\*\*\* as an artificial oxygen carrier in anesthetized spontaneously breathing rats  
AU Poetzschke, Harald; Guth, Stefan; Barnikol, Wolfgang K.R.  
CS Institut Physiologie und Pathophysiologie, Johannes Gutenberg-Universitaet, Mainz, D-6500, Germany  
SO Adv. Exp. Med. Biol. (1994), 345(Oxygen Transport to Tissue XV), 205-13  
CODEN: AEMBAP; ISSN: 0065-2598

DT Journal  
LA English

CC 63-7 (Pharmaceuticals)

Section cross-reference(s): 1

AB The prodn. of hyperpolymer Hb, exhibiting sufficiently low colloid osmotic pressure and sufficiently low viscosity is possible, even in concs., and with oxygen transport capacity high enough to supply an organism adequately with O. Such hyperpolymers, when infused, are